

Appl. No.: 10/720,658
Amdt. dated 06/18/2008
Reply to Office action of February 22, 2008

REMARKS/ARGUMENTS

This Amendment is being filed concurrently with a Request for Continued Examination. With this Amendment, claims 1, 16, 17, 18, 19, 20 and 21 are amended herein and Applicant adds claims 30-44. No new matter is added. Support for the amendments to independent claims 1, 16 and 21 may be found at least at pages 14-15 of the originally-filed specification and support for new claims 30-44 may be found at least at pages 13-16 of the originally-filed specification. Claims 1-10 and 12-44 are all the claims currently pending in the application. Based on the foregoing amendments and the following remarks, Applicant respectfully requests reconsideration of the application and allowance of the claims.

I. Rejection of Claims 1-9, 16-17 & 21-23 Under 35 U.S.C. § 102(e)

Claims 1-9, 16-17 and 21-23 remain rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Kadous (U.S. Patent No. 6,636,568; hereinafter “Kadous”)

Claim 1, as herein amended, recites “[a]n apparatus comprising:” *inter alia*, “a first mapper adapted to receive first representations of a first portion of communication data, said first mapper for mapping the first representations of the first portion of the communication data into first mapped values according to a first mapping scheme; and a second mapper adapted to receive second representations of a second portion of the communication data, said second mapper for mapping the second representations of the communication data into second mapped values according to a second mapping scheme, the second mapping scheme exhibiting a mapping property that differs with the first mapping scheme ... wherein the *apparatus defines a code* comprising a *plurality of layers defined over the first antenna transducer and the second antenna transducer.*”

Applicant submits that Kadous does not teach or suggest all of the above features of amended claim 1. In rejecting claim 1, the Examiner relies on antenna 124a of Kadous as corresponding to the claimed first antenna transducer and the Examiner relies on antenna 124t of Kadous as corresponding to the claimed second antenna transducer. (See pg. 2 of the Office Action dated February 22, 2008) As noted above, claim 1 recites that “the apparatus *defines a code comprising a plurality of layers defined over the first antenna transducer and the second antenna transducer.*” However, Kadous does not teach or suggest at least this feature of claim 1.

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Rather, Kadous, at best, discloses that each transmitter 122a, 122t which receives a modulation symbol stream from the TX MIMO processor 120a (which was generated by symbol mapping elements 516a, 516b) provides a modulated signal to the associated antenna 124a, 124t. (See FIG. 5) Nowhere in Kadous is there any mention, teaching or suggestion relating to either the antenna 124a, or the antenna 124t (or any other antenna for that matter) being defined by a code comprising a plurality of layers, as claimed. Instead, Kadous is altogether silent regarding the makeup of the antenna 124a and antenna 124t and there certainly is no teaching or suggestion relating to any apparatus therein that defines a code comprising a plurality of layers that is defined over antenna 124a and antenna 124t, as required by claim 1. For at least this reason, Kadous does not teach or suggest all of the features of claim 1.

In view of at least the foregoing reasons, Applicant submits that Kadous does not teach or suggest all of the features of claim 1. Applicant therefore respectfully requests the Examiner to reconsider and withdraw the § 102(e) rejection of claim 1 and its dependent claims 2-9.

Given that claims 16 and 21 contain features that are analogous to, though not necessarily coextensive with, the features recited in claim 1, Applicant respectfully submits that claim 16 and its dependent claim 17 as well as claim 21 and its dependent claims 22-23 are patentable at least for reasons analogous to those submitted for independent claim 1.

II. Rejection of Claim 10 Under 35 U.S.C. § 103(a)

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Kadous in view of Li et al. (U.S. Patent No. 7,068,628; hereinafter “Li”). Applicant respectfully traverses this rejection for at least the following reasons.

As discussed above, Kadous is deficient vis-à-vis independent claim 1 and Li does not compensate for the deficiencies of Kadous. Applicant therefore respectfully requests the Examiner to reconsider and withdraw the § 103(a) rejection of dependent claim 10.

III. Rejection of Claims 12-15 & 18-20 Under 35 U.S.C. § 103(a)

Claims 12-15 and 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kadous in view of U.S. Patent No. 6,731,668 by Ketchum. Applicant respectfully traverses this rejection for at least the following reasons.

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As discussed above, Kadous is deficient vis-à-vis independent claims 1 and 16 and Ketchum does not compensate for the deficiencies of Kadous. Applicant therefore respectfully requests the Examiner to reconsider and withdraw the § 103(a) rejection of dependent claims 12-15 and 18-20.

IV. Rejection of Claims 27-29 Under 35 U.S.C. § 103(a)

Claims 27-29 remain rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Kadous in view of the article entitled *2003 4th IEEE Workshop on Signal Processing Advances in Wireless Communications* by Kammoun et al (hereinafter “Kammoun”). Applicant respectfully traverses this rejection for at least the following reasons.

As discussed above, Kadous is deficient vis-à-vis independent claims 1, 16 and 21 and Kammoun does not compensate for the deficiencies of Kadous. Applicant therefore respectfully requests the Examiner to reconsider and withdraw the § 103(a) rejection of dependent claims 27-29.

V. New Claims

Applicant herein adds new claims 30-44 to provide more varied protection of Applicant’s invention as described in the specification. In addition to their respective dependencies from independent claims 1, 16 and 21, Applicant submits that new dependent claims 30-44 are independently patentable given that the cited references, alone or in combination, do not teach or suggest the features of these claims.

VI. Conclusion

In view of the foregoing remarks, Applicant respectfully submits that all of the claims of the present application are in condition for allowance. It is respectfully requested that a Notice of Allowance be issued in due course. Examiner Dean is encouraged to contact Applicant’s undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper.

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However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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